AMENDMENTS TO THE CLAIMS:

1-6. (Cancelled)

7. (Previously Presented) A system for processing a substrate, comprising:

at least one atomic layer deposition barrier chamber for depositing a barrier layer comprising tantalum nitride, wherein the at least one atomic layer deposition barrier chamber comprises a first source providing PDMAT and a second source providing ammonia; and

at least one physical vapor deposition metal seed chamber for depositing a copper alloy seed layer over the barrier layer, wherein the copper alloy seed layer comprises copper and a metal selected from the group consisting of aluminum, magnesium, titanium, zirconium, tin, and combinations thereof and wherein the metal is present in the copper alloy in a concentration between about 0.01 atomic percent and about 2.0 atomic percent.

8-10. (Cancelled)

11. (Previously Presented) The system of claim 7, wherein the physical vapor deposition metal seed chamber is a high density plasma physical vapor deposition metal seed chamber.

12. (Previously Presented) The system of claim 7, further comprising one or more transfer chambers for transferring a substrate between the atomic layer deposition barrier chamber and the physical vapor deposition metal seed chamber.

13. (Cancelled)

14. (Previously Presented) A system for processing a substrate, comprising:

at least one atomic layer deposition barrier chamber for depositing a barrier layer comprising tantalum nitride, wherein the at least one atomic layer deposition barrier

chamber comprises a first source providing PDMAT and a second source providing ammonia;

at least one physical vapor deposition copper alloy seed chamber for depositing a copper alloy seed layer over the barrier layer, wherein the copper alloy seed layer comprises copper and a metal selected from the group consisting of aluminum, magnesium, titanium, zirconium, tin, and combinations thereof; and

at least one physical vapor deposition undoped copper seed chamber for depositing an undoped copper seed layer over the copper alloy seed layer.

15-18. (Cancelled)

19. (Previously Presented) The system of claim 14, wherein the physical vapor deposition copper alloy seed chamber is a high density plasma physical vapor deposition copper alloy seed chamber and the physical vapor deposition undoped copper seed chamber is a high density plasma physical vapor deposition undoped copper seed chamber.

20. (Previously Presented) The system of claim 14, further comprising one or more transfer chambers for transferring a substrate between the atomic layer deposition barrier chamber, the physical vapor deposition copper alloy seed chamber, and the physical vapor deposition undoped copper seed chamber.

21. (Cancelled)

22. (Previously Presented) A system for processing a substrate, comprising:

at least one atomic layer deposition barrier chamber for depositing a barrier layer comprising tantalum nitride, wherein the at least one atomic layer deposition barrier chamber comprises a first source providing PDMAT and a second source providing ammonia;

at least one physical vapor deposition metal seed chamber for depositing a metal seed layer over the barrier layer, wherein the metal seed layer comprises a metal

selected from the group consisting of aluminum, magnesium, titanium, zirconium, tin, and combinations thereof; and

at least one physical vapor deposition undoped copper seed chamber for depositing an undoped copper seed layer over the metal seed layer.

23-26. (Cancelled)

27. (Previously Presented) The system of claim 22, wherein the physical vapor deposition metal seed chamber is a high density plasma physical vapor deposition metal seed chamber and the physical vapor deposition undoped copper seed chamber is a high density plasma physical vapor deposition undoped copper seed chamber.

28. (Previously Presented) The system of claim 22, further comprising one or more transfer chambers for transferring a substrate between the atomic layer deposition barrier chamber, the physical vapor deposition metal seed chamber, and the physical vapor deposition undoped copper seed chamber.

29-30. (Cancelled)

31. (Previously Presented) The system of claim 7, wherein the copper alloy seed layer is deposited directly on the barrier layer comprising tantalum nitride.

32-33. (Cancelled)

34. (Previously Presented) The system of claim 14, wherein the copper alloy seed layer is deposited directly on the barrier layer comprising tantalum nitride.

35-36. (Cancelled)

37. (Previously Presented) The system of claim 22, wherein the metal seed layer is deposited directly on the barrier layer comprising tantalum nitride.

38. (Cancelled)

39. (Previously Presented) The system of claim 7, wherein the copper alloy seed layer comprises the metal present in the copper alloy in a concentration between about 0.1 atomic percent and about 1.0 atomic percent.

40. (Previously Presented) The system of claim 7, wherein the atomic layer deposition barrier chamber comprises a first source providing a tantalum containing compound and a second source providing a nitrogen containing compound.

41. (Cancelled)

42. (Previously Presented) The system of claim 7, wherein the copper alloy seed layer comprises copper and aluminum.

43. (Previously Presented) The system of claim 7, wherein the copper alloy seed layer comprises copper and titanium.

44. (Previously Presented) The system of claim 14, wherein the copper alloy seed layer comprises the metal present in the copper alloy in a concentration between about 0.001 atomic percent and about 5.0 atomic percent.

45. (Previously Presented) The system of claim 14, wherein the copper alloy seed layer comprises the metal present in the copper alloy in a concentration between about 0.01 atomic percent and about 2.0 atomic percent.

46. (Previously Presented) The system of claim 14, wherein the atomic layer deposition barrier chamber comprises a first source providing a tantalum containing compound and a second source providing a nitrogen containing compound.

47. (Cancelled)

48. (Previously Presented) The system of claim 14, wherein the copper alloy seed layer comprises copper and aluminum.

49. (Previously Presented) The system of claim 14, wherein the copper alloy seed layer comprises copper and titanium.

50-51. (Cancelled)

52. (Previously Presented) A system for processing a substrate, comprising:

at least one atomic layer deposition barrier chamber comprising a first source providing PDMAT and a second source providing a nitrogen containing compound;

at least one physical vapor deposition metal seed chamber having a copper alloy target comprising copper and a metal selected from the group consisting of aluminum, titanium, and combinations thereof and wherein the metal is present in the copper alloy target in a concentration between about 0.001 atomic percent and about 5.0 atomic percent; and

at least one transfer chamber for transferring the substrate between the atomic layer deposition barrier chamber and the physical vapor deposition metal seed chamber.

53. (Previously Presented) The system of claim 52, wherein the metal is present in the copper alloy target in a concentration between about 0.01 atomic percent and about 2.0 atomic percent.

54. (Previously Presented) The system of claim 53, wherein the metal is present in the copper alloy target in a concentration between about 0.1 atomic percent and about 1.0 atomic percent.

55. (Previously Presented) The system of claim 53, wherein the copper alloy target consists essentially of copper and aluminum.

56. (Previously Presented) The system of claim 53, wherein the copper alloy target consists essentially of copper and titanium.

57. (Previously Presented) The system of claim 52, wherein the nitrogen containing compound is ammonia.

58. (Previously Presented) The system of claim 7, wherein the PDMAT has a chlorine concentration of about 5 ppm or less.

59. (Previously Presented) The system of claim 14, wherein the PDMAT has a chlorine concentration of about 5 ppm or less.

60. (Previously Presented) The system of claim 22, wherein the PDMAT has a chlorine concentration of about 5 ppm or less.

61. (Previously Presented) The system of claim 52, wherein the PDMAT has a chlorine concentration of about 5 ppm or less.